

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

INGENICO INC.,  
*Plaintiff,*

V.

IOENGINE, LLC,  
*Defendant.*

IOENGINE, LLC,  
*Counterclaim Plaintiff,*

V.

INGENICO INC., INGENICO CORP.,  
and INGENICO GROUP SA,  
*Counterclaim Defendants.*



C.A. No. 18-826-WCB

## JURY TRIAL DEMANDED

**IOENGINE, LLC’S OPENING BRIEF IN SUPPORT OF ITS  
RENEWED MOTION FOR JUDGMENT AS A MATTER OF  
LAW OR, IN THE ALTERNATIVE, FOR A NEW TRIAL**

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Pursuant to Fed. R. Civ. P. 50(b), IOENGINE, LLC (“IOENGINE”) respectfully renews its motion for judgment as a matter of law of no invalidity of U.S. Patent No. 9,059,969 (the “’969 Patent”) Claim 3 and U.S. Patent No. 9,774,703 (the “’703 Patent”) Claims 56, 90, 101, 105, and 124. In the alternative, IOENGINE moves for a new trial pursuant to Rule 59.

## **I. SUMMARY OF ARGUMENT**

1. Ingenico’s invalidity defense, centered on a firmware upgrade application for DiskOnKey devices, was not supported by substantial evidence. Ingenico failed to present a legally sufficient basis for the jury to return a verdict finding clear and convincing evidence that the firmware upgrade application was in public use, on sale, or known or used by others in this country before the relevant critical dates, or that it anticipated or rendered obvious the Asserted Claims. In the absence of substantial evidence, IOENGINE should be granted judgment as a matter of law of no invalidity or, in the alternative, a new trial.

2. IOENGINE is also entitled to a new trial for two additional reasons: (1) there were substantial errors in the jury instructions on conception and diligence, the presumption of validity, and § 102, which confused the jury and led to the mistaken invalidity verdict; and (2) Ingenico’s presentation of the firmware upgrade application was barred by IPR estoppel.

## **II. NATURE AND STAGE OF THE PROCEEDINGS**

A five-day jury trial concerning Ingenico’s infringement of the ’969 and ’703 patents and its invalidity affirmative defenses began on July 11, 2022. After the close of Ingenico’s case-in-chief on invalidity, IOENGINE moved for judgment as a matter of law of no invalidity. *See* Trial Tr. 943:1-21, 945:1-6, 950:10-957:18.<sup>1</sup> The Court deferred ruling on the Fed. R. Civ. P. 50(a) motions and allowed the case to be submitted to the jury. *E.g., id.* at 956:11-957:18.

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<sup>1</sup> Excerpts of the trial transcripts cited herein are filed concurrently herewith as Exhibit 1.

The Court subsequently held both informal and formal jury instruction conferences and considered input and objections from the parties. *See id.* at 1169:10-1247:18, 1265:6-1276:6. On July 15, 2021, the jury returned a verdict finding, among other things, that '969 Patent Claim 3 and '703 Patent Claims 56, 90, 101, 105 were infringed, but invalid as anticipated and obvious. D.I. 500. On July 25, 2021, the Court entered judgment consistent with the verdict. D.I. 506.

### **III. STATEMENT OF FACTS**

#### **A. Mr. McNulty's Conception and Diligent Reduction to Practice**

Mr. McNulty testified at trial regarding his conception and diligent reduction to practice of his invention, and he was corroborated by documents and other witness testimony. Mr. McNulty testified that he attended the June 2001 PC Expo in New York and had his "light bulb moment" while visiting a trade show booth. Trial Tr. 147:22-155:11; *see* PX-222-0221 (PC Expo ad confirming trade show dates). Mr. McNulty testified that he attended the June 2001 PC Expo with Mr. Thomas Rzonca and that he told him about his idea "right then and there." Trial Tr. 153:15-16. Mr. Rzonca corroborated Mr. McNulty's conception, explaining that Mr. McNulty "presented an idea to [him] about portable devices." Trial Tr. 333:7-8; *see also id.* at 330:21-333:8.

Shortly after PC Expo, Mr. McNulty wrote his idea down in a document he titled "Portable devices rule" (hereinafter, "PDR"), which he showed to Mr. Rzonca and his attorney. Trial Tr. 155:12-157:6; PX-235. Mr. Rzonca testified that he was "sure [he] saw a version of [PDR]" at the time because, as a "[h]uge Stanley Kubrick fan," PDR's reference to "(hello Hal)" stuck out in his mind.<sup>2</sup> Trial Tr. 333:2-340:25; *see* PX-235-0001.

Mr. McNulty explained that he included every aspect of his claimed invention in PDR.

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<sup>2</sup> It was particularly memorable to Mr. Rzonca because the reference to "Hal" should have been fully capitalized as an acronym for "Heuristically Algorithmic." Trial Tr. 334:16-335:4.



Trial Tr. 190:25-213:3. IOENGINE’s expert, Dr. Aviel Rubin, confirmed this from the perspective of a POSITA. Trial Tr. 1052:24-1062:9. With respect to the facilitating portable device verification claims (’969 Claim 3 and ’703 Claims 56 and 105) and portable device identifier claims (’703 Claims 90, 101, and 124), both Mr. McNulty and Dr. Rubin pointed to this statement in PDR: “The user clicks yes and *code on the portable device* works it[s] way through the computer to the internet and contacts a web site and says Hi. I am here from a persons *[sic]* pocket and I would like to copy your content.” Trial Tr. 206:21-210:14, 1058:11-17, 1059:2-1060:23, 1061:17-1062:9.<sup>3</sup> Both explained that the “I” in the phrase “I am here from a persons pocket” refers to the device (not the person) and that facilitating verification is illustrated because the device is *seeking permission* to copy content. *Id.*; *see id.* at 1060:10-23 (“And one of skill in the art...would know that you wouldn’t just give the content to anyone, you would verify.”).

The only challenge Ingenico presented to Mr. McNulty’s conception was testimony from Mr. James Geier, questioning whether PDR supported the facilitating verification and device identifier elements. *See* Trial Tr. 865:6-867:14, 1131:21-1133:6, 1143:23-1146:5. Mr. Geier opined that PDR, including “Hi, I am here from a persons pocket,” did not teach facilitating verification. But he later negated this opinion, testifying with respect to asserted prior art that “a very well known method” of verification would involve “a challenge response” where the server says to the portable device, “Hi, I’m the server.” Trial Tr. 1140:13-1141:15, 1143:23-1145:13.<sup>4</sup>

After the June 2001 PC Expo and memorializing his invention in PDR, Mr. McNulty set out to reduce his invention to practice. He testified that he worked with Dr. Larry Bernstein on

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<sup>3</sup> Emphases added unless otherwise noted.

<sup>4</sup> As discussed below, in closing, Ingenico said nothing of Mr. Geier’s attempt to discredit PDR. *See* Trial Tr. 1338:5-1365:16. Instead, Ingenico told the jury that Mr. McNulty’s invention date, conception date, and reduction to practice were “irrelevant.” *Id.* at 1362:5-11.

proof of concept prototypes from August 2001 to early 2003 and was in contact with him “[j]ust about every week.” Trial Tr. 157:7-162:25. This was corroborated by metadata reflecting an April 2002 modification date for an application from one of those early prototypes. *Id.* at 159:14-161:14 (discussing PX-547). Mr. McNulty testified that, while his work with Dr. Bernstein was ongoing, he identified and hired other vendors to work on additional prototypes. Trial Tr. 161:24-174:11, 177:13-185:14. He worked diligently on those additional prototypes from late 2002 through the filing of his patent application in March 2004. *E.g.*, Trial Tr. 169:24-170:5; *see also id.* at 174:8-11 (“Q. [H]ow often did you interact with the vendors that were working with you on these prototypes? A. You know, every evening, every weekend, all weekend. It was nonstop for me.”).

Mr. McNulty’s testimony was uncontroverted and corroborated by physical evidence, including approximately 30 remaining prototypes<sup>5</sup> that were exhibited to the Jury (PX-434; Trial Tr. 170:6-10) and had been inspected during discovery. His testimony was also corroborated by documentary evidence, including a vendor agreement (JX-272), development documents (PX-219, PX-231, PX-243, PX-244, PX-543), and surviving invoices totaling over [REDACTED] and showing hundreds of hours of work (JX-3, JX-5, PX-236, PX-242). Two of Ingenico’s proffered witnesses, Mr. Dan Harkabi and Mr. Gidon Elazar, further corroborated Mr. McNulty’s diligence, including that he spent [REDACTED] on prototype development. Trial Tr. 704:22-705:8, 706:13-707:7, 723:17-724:11; *compare id.* at 179:14-24 (Mr. McNulty testifying that he spent approximately [REDACTED] to MDRM) *with* 707:2-7 (Mr. Harkabi recalled MDRM being paid in the ballpark of [REDACTED]). Ultimately, Mr. McNulty constructively reduced his invention to practice with the filing of his patent application on March 23, 2004. Trial Tr. 185:15-21; JX-349 (Related U.S. Application Data); JX-350 (same).

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<sup>5</sup> Mr. McNulty had originally created around 90 prototypes. Trial Tr. 169:24-170:5.

**B. The DiskOnKey Hardware, Firmware Upgrade Application, and Software Development Kit**

The DiskOnKey was a blank USB storage device from M-Systems Flash Disk Pioneers Ltd. (“M-Systems”) that provided “removable, secured data storage.” *See* DX-091.26 (the “2002 SEC Annual Report”). The 2002 SEC Annual Report also reported that M-Systems introduced versions of “KeySafe” and “MyKey” applications for use with the DiskOnKey. *Id.* However, at trial, Ingenico disclaimed reliance on blank DiskOnKeys, KeySafe, and MyKey to show invalidity. *See, e.g.,* Trial Tr. 789:21-790:3 (“KeySafe and MyKey...[didn’t] form a base of [Mr. Geier’s] invalidity opinion....”), 1357:24-1358:1 (“DiskOnKey was introduced...in November of 2000. [But], remember, that alone is not enough.”), 1360:24-1361:2, 1363:7-10; *see also* 1298:22-1299:14 (instructions described the prior art as “The M-Systems DiskOnKey product, *along with* the Firmware Upgrade software and the M-Systems DiskOnKey Software Development Kit.”).

Instead, the focus of Ingenico’s invalidity case was a firmware upgrade application supposedly able to be downloaded and used with DiskOnKey hardware, with Ingenico calling that application “kind of the star of the show.” *See* Trial Tr. 780:25-781:14 (Geier), 793:17-20.

However, critically, Ingenico adduced no evidence at trial proving that the firmware upgrade application was ever “on sale” anywhere, much less in this country. Nothing resembling an offer for sale was presented and the “press release” Ingenico relied upon heavily was merely an advertisement that, at best, invited potential customers to offer to purchase blank DiskOnKeys—not the firmware upgrade application. *See* DX-097 (listing MSRPs of various storage capacities of blank DiskOnKeys and directing interest to third-party retailers and to the DiskOnKey website only “for additional information”). The evidence similarly failed to establish that the firmware upgrade application was ever actually used—even a single time—or known by others in this country. The 2002 SEC Annual Report (filed June 30, 2003, less than one year before Mr.

McNulty’s March 23, 2004 application date), contains 105 pages of disclosures, including of *other* applications that M-Systems had introduced for the DiskOnKey, but makes no mention of DiskOnKey firmware or any application to upgrade it. *See generally* DX-091.<sup>6</sup> There was also no evidence that M-Systems ever actually made a firmware update available through the application. In fact, one of the documents Ingenico relied on, an M-Systems presentation from *just* [REDACTED] before Mr. McNulty’s one-year critical date, indicated the opposite. *See* DX-336 at 5-6:

[REDACTED]  
[REDACTED]  
[REDACTED]

Ingenico also relied on an M-Systems software development kit (“SDK”) that supposedly described functionality on which the firmware upgrade application was based. But the only document describing details of the SDK was “preliminary” and there was no proof that the SDK was ever used outside of M-Systems<sup>7</sup> or that the functionality Ingenico relied on was supported by all DiskOnKey versions that supposedly could use the firmware upgrade application. *Compare* DX-330 (claiming that firmware upgrade [REDACTED]) *with* DX-333 at 10, 24 ([REDACTED] [REDACTED]).<sup>8</sup> Further, the custodial witness for the decades-old documents—who did not join M-Systems until years later, after Mr. McNulty’s application was filed—explained that knowledge of whether the firmware upgrade application used the SDK no longer existed. *See* Trial Tr. 728:14-16, 738:9-12 (Sobol). The only other witnesses with knowledge of the DiskOnKey’s development were two

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<sup>6</sup> This is despite Ingenico’s claim that the upgrade application was released in mid-2002.

<sup>7</sup> Like the firmware upgrade, the SDK is not mentioned in the 2002 SEC Annual Report.

<sup>8</sup> There was no evidence that different SDKs or different firmware upgrade applications existed for different DiskOnKey versions. So, if the firmware upgrade application worked with [REDACTED], it must have used something other than the SDK because the only documentary evidence presented at trial proves that supposedly relevant SDK features required [REDACTED].

former M-Systems employees, Messrs. Dan Harkabi and Gidon Elazar, who left the company in 2002. Neither knew how the firmware upgrade application worked and both doubted whether any associated DiskOnKey authentication ability existed at the time. *See, e.g., id.* at 701:6-8, 702:18-22 (Harkabi); *id.* at 716:22-717:7, 720:13-21, 725:18-22 (Elazar).

### **C. The Elazar Publication**

U.S. Patent Application Publication No. 2004/0039932 (“Elazar”) was published on February 26, 2004. DX-363. Ingenico presented Elazar only as a potential obviousness combination with the DiskOnKey art, and only on the issue of authentication. *See* Trial Tr. 721:15-723:16 (Elazar), 860:13-862:24 (Geier), 1363:22-1364:4 (“We’re really only relying upon Elazar as an obviousness combination....[T]o the extent that there was any doubt that there was authentication of, with the DiskOnKey, this fills in the gap.”).

Additional pertinent facts are presented in applicable sections throughout this brief.

## **IV. LEGAL STANDARDS**

### **A. Judgment as a Matter of Law**

Judgment as a matter of law (“JMOL”) may be entered if the Court “finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on [an] issue.” Fed. R. Civ. P. 50(a)(1); *see also* Fed. R. Civ. P. 50(b) (“If the court does not grant a [Rule 50(a)] motion..., the court is considered to have submitted the action to the jury subject to the court’s later deciding the legal questions raised by the motion.”). “To prevail on a renewed motion for JMOL following a jury trial, a party must show that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusion(s) implied [by] the jury’s verdict cannot in law be supported by those findings.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998). “[T]he question is not whether there is literally no evidence supporting the party against whom the [Rule 50(b)] motion is directed but whether there is evidence upon which

the jury could properly find a verdict for that party.” *Cange v. Philadelphia Parking Auth.*, 451 F. App’x 210, 212 (3d Cir. 2011); *Gavrieli Brands LLC v. Soto Massini (USA) Corp.*, C.A. No. 18-462-MN, 2020 WL 1443215, at \*2 (D. Del. Mar. 24, 2020) (“Substantial evidence is such relevant evidence that a reasonable mind might accept as adequate to support the finding under review.”). On a JMOL, “the court must also take into account the required quantum of proof; for a patent invalidity verdict, the quantum of proof is clear and convincing evidence, because a patent is presumed valid.” *MLMC, Ltd. v. Airtouch Commc’ns, Inc.*, 215 F. Supp. 2d 464, 469-70 (D. Del. 2002) (citing *Juicy Whip, Inc. v. Orange Bang, Inc.*, 292 F.3d 728, 736 (Fed. Cir. 2002)).

## **B. New Trial**

Under Fed. R. Civ. P. 59, the Court should grant a new trial on the basis that the verdict was against the weight of the evidence and a miscarriage of justice would result if the verdict were to stand. *See Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1352 (3d Cir. 1991). The standard for a new trial is less rigorous than the standard for JMOL, in that “the Court need not view the evidence in the light most favorable to the verdict winner....” *Gavrieli*, 2020 WL 1443215, at \*3. There is more freedom to scrutinize the jury’s verdict in a case that deals with complex factual determinations, as opposed to when the subject matter of the litigation is simple and within a layman’s understanding. *See Williamson*, 926 F.2d at 1352.

A new trial may also be granted if “substantial errors were made in the...giving or refusal of instructions.” *Lightning Lube, Inc. v. Witco Corp.*, 802 F. Supp. 1180, 1186 (D.N.J. 1992), *aff’d*, 4 F.3d 1153 (3d Cir. 1993). Where a party challenges patent law instructions, Federal Circuit law governs the sufficiency of the instructions. *See Eko Brands, LLC v. Adrian Rivera Maynez Enters., Inc.*, 946 F.3d 1367, 1378 (Fed. Cir. 2020). In general, the challenging party “must ‘prove the jury instructions read in their entirety were incorrect or incomplete as given.’” *Id.* (citing *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1307 n.7 (Fed. Cir. 2007)).

### C. Burdens for Conception and Diligent Reduction to Practice

After a party challenging a patent offers evidence of prior art before the filing date, the patentee has “the burden to offer evidence showing he invented the subject matter of his patent before the [prior art date]” and “proceeded with reasonable diligence from a date just prior to [the prior art date] to his filing date.” *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1576-78 (Fed. Cir. 1996). Once the patentee has come forward with some evidence, the challenger “must persuade the jury by clear and convincing evidence that its version of the facts is true.” *Id.* at 1578. “In other words, [the challenger] must persuade the jury that [the patentee] did not invent prior to [the prior art date]...because...he did not conceive and thereafter proceed with reasonable diligence as required to his filing date.” *Id.* At all times, the challenger retains “the burden of persuasion [by clear and convincing evidence] on the status of the” prior art. *Id.*

### D. 35 U.S.C. § 102(b)

#### 1. “in public use”

“Public use” under § 102(b) requires evidence of “**actual use** by someone at some point.” *Minn. Mining & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1307 (Fed. Cir. 2002); *see also Int’l Bus. Machines Corp. v. Priceline Grp. Inc.*, 271 F. Supp. 3d 667, 681 (D. Del. 2017), *aff’d sub nom. Int’l Bus. Machines Corp. v. Booking Holdings Inc.*, 775 F. App’x 674 (Fed. Cir. 2019).

Due to the policy concerns underlying § 102(b), use by an applicant is treated differently than use by an unaffiliated third-party. *See Woodland Tr. v. Flowertree Nursery, Inc.*, 148 F.3d 1368, 1371 (Fed. Cir. 1998); *BASF Corp. v. SNF Holding Co.*, 955 F.3d 958, 967-68 (Fed. Cir. 2020).<sup>9</sup> An **applicant’s** public use may be invalidating even if it does not inform the public of the

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<sup>9</sup> “Section 102(b)...is primarily concerned with the policy that encourages an inventor to enter the patent system promptly....” *Woodland*, 148 F.3d at 1371; *see also BASF*, 955 F.3d at 964

invention, but “when an asserted prior use is not that of the applicant, § 102(b) is not a bar when that prior use or knowledge is not available to the public.” *Woodland*, 148 F.3d at 1371.

Thus, when prior use is by an unaffiliated third party, the “claimed features of the patents [must be placed] in the public’s possession.” *Dey L.P. v. Sunovion Pharms., Inc.*, 715 F.3d 1351, 1359 (Fed. Cir. 2013). “[I]f members of the public are not informed of, and cannot readily discern, the claimed features of the invention in the allegedly invalidating prior art, the public has not been put in possession of those features.” *Id.*; *see also TQP Dev., LLC v. 1-800-Flowers.com, Inc.*, 120 F. Supp. 3d 600, 616 (E.D. Tex. 2015), *aff’d sub nom. TQP Dev. LLC v. Newegg, Inc.*, 677 F. App’x 683 (Fed. Cir. 2017); *cf. TQP Dev., LLC v. Intuit Inc.*, No. 2:12-CV-180-WCB, 2014 WL 2809841, at \*6 (E.D. Tex. June 20, 2014) (Bryson, J.) (discussing public use in § 102(g) context).

The Court declined to incorporate this distinction into the jury instructions, at least partially based on the belief that *Egbert v. Lippmann*, 104 U.S. 333 (1881), “is a third-party case...not an inventor case.” Trial Tr. at 1271:12-16. But *Egbert* is an inventor case—not a third-party case; in *Egbert*, the woman wearing the corset-steels had been given them **by the inventor**. 104 U.S. at 337 (“[T]here was, by the consent and allowance of [the inventor], a public use of the invention....[T]he inventor made and gave to her two pairs of corset-steels....”); *see also Dey*, 715 F.3d at 1359 (“As for *Egbert*, although the invalidating use in that case was not visible to the general public, the case turned on the lack of the control **the inventor** maintained over his invention.”); *Woodland*, 148 F.3d at 1370 (describing the holding of *Egbert* being that “**inventor’s** unobservable prior use was a ‘public use’”). *Egbert* is fully consistent with the larger body of law distinguishing between use associated with the applicant and use by an unrelated third party.

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(discussing judicial and legislative history behind codification of the “distinction between novelty and statutory bars in the Patent Act of 1836”).



## 2. “on sale”

“An invention is ‘on sale’ under § 102(b) when it is ‘the subject of a commercial offer for sale,’ and is ready for patenting.” *BASF*, 955 F.3d at 969 (citing *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998)). “The invention itself must be sold or offered for sale, and the mere existence of a ‘commercial benefit...is not enough to trigger the on-sale bar’ on its own.” *Id.* (citing *Medicines Co. v. Hospira, Inc.*, 827 F.3d 1363, 1373 (Fed. Cir. 2016) (*en banc*)).

In general, the Federal Circuit “look[s] to the Uniform Commercial Code (“UCC”) to define whether...a communication or series of communications rises to the level of a commercial offer for sale.” *Grp. One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1047 (Fed. Cir. 2001). “An offer is the manifestation of willingness to enter into a bargain, so made as to justify another person in understanding that his assent to that bargain is invited and will conclude it.” *Linear Tech. Corp. v. Micrel, Inc.*, 275 F.3d 1040, 1050 (Fed. Cir. 2001) (quoting Restatement (Second) of Contracts § 24 (1981)); *see also Merck & Cie v. Watson Labs., Inc.*, 822 F.3d 1347, 1351 (Fed. Cir. 2016) (“Only...a commercial offer for sale, one which the other party could make into a binding contract by simple acceptance (assuming consideration), constitutes an offer for sale under § 102(b).”); *Atlanta Attachment Co. v. Leggett & Platt, Inc.*, 516 F.3d 1361, 1365 (Fed. Cir. 2008); *Grp. One*, 254 F.3d at 1048.

“[P]romotional activity not rising to the level of a contractual offer for sale cannot trigger the on-sale bar.” *Minn. Mining*, 303 F.3d at 1307, 1308 (even “[p]roviding potential customers with samples of a product, without providing any other terms, is not a commercial offer for sale....”); *see also Grp. One*, 254 F.3d at 1048 (“[C]ontract law traditionally recognizes that mere advertising and promoting of a product may be nothing more than an invitation for offers, while responding to such an invitation may itself be an offer.” (citing Restatement (Second) of Contracts § 26 (1981))); *Smith v. Garlock Equip. Co.*, 658 F. App’x 1017, 1028-29 (Fed. Cir. 2016).

**E. 35 U.S.C. § 102(a)**

“A person shall be entitled to a patent unless...the invention was known or used by others in this country...before the invention thereof by the applicant....” 35 U.S.C. § 102(a). The Federal Circuit “has uniformly interpreted the ‘known or used’ prong...to mean ‘knowledge or use which is *accessible to the public*.’” *BASF*, 955 F.3d at 964 (collecting cases). “One who invents something previously known or used in a literal sense, but which has been...concealed..., is the first to ‘enrich[] the art’ by his disclosure and is therefore the original inventor.” *Id.* (citing *Gillman v. Stern*, 114 F.2d 28, 31 (2d Cir. 1940) (Hand, J.)). “Prior knowledge or use that is not accessible to the public ‘upon reasonable inquiry,’ confers no benefit on the public, and thus does not suffice as a defense under § 102(a).” *Id.* (citing *Gayler v. Wilder*, 51 U.S. (10 How.) 477, 497 (1850)).

**1. “known...by others”**

For an invention to be “known” under § 102(a), the disclosure must be “sufficient to enable one skilled in the art to reduce the invention to practice.” *In re Borst*, 345 F.2d 851, 855 (C.C.P.A. 1965); *see also Anchor Wall Sys. v. Rockwood Retaining Walls, Inc.*, 610 F. Supp. 2d 998, 1014 (D. Minn. 2009) (“[D]efendants were required to prove more than mere disclosure of their idea. Defendants were required to prove—by clear and convincing evidence—that they offered sufficient detail to enable the third party to ‘practice the invention.’”). “In order to enable, the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation.” *Minn. Mining*, 303 F.3d at 1306 (citing *Nat’l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1195–96 (Fed.Cir.1999)).

**2. “used by others”**

As with public use under § 102(b), for an invention to be “used by others” under § 102(a), there must be “*actual use* by someone at some point.” *Minn. Mining*, 303 F.3d at 1307; *see also Ex Parte Bokhari*, No. 09/902,929, 2010 WL 4740064, at \*3 (B.P.A.I. Nov. 19, 2010) (software

“uploaded to a Web site” was not invalidating where there was “no evidence...that [it] was downloaded”). A product that is technically “accessible to the public,” cannot invalidate if the public’s use of that product does “not amount to public access to the *invention*.” *Parallel Networks Licensing, LLC v. Int’l Bus. Machines Corp.*, No. 13-2072 (KAJ), 2017 WL 1045912, at \*9 (D. Del. Feb. 22, 2017) (Jordan, J.) (emphasis in original), *aff’d*, 721 F. App’x 994 (Fed. Cir. 2018).

## **V. ARGUMENT**

### **A. The Court Should Enter Judgment as a Matter of Law or, in the Alternative, Order a New Trial on Ingenico’s Invalidity Defenses Because Substantial Evidence Does Not Support the Jury’s Verdict**

The evidence presented at trial cannot support the jury’s verdict on invalidity, because there was *no* evidence that the firmware upgrade application was ever in use, on sale, or publicly known or used in this country. As such, IOENGINE is entitled to judgment as a matter of law of no invalidity. Alternatively, for the same reasons, IOENGINE is entitled to a new trial because the jury’s invalidity verdict is against the weight of the evidence and a miscarriage of justice.

#### **1. An Invalidity Verdict Based on the DiskOnKey Firmware Upgrade Application Is Not Supported by Substantial Evidence**

There was no dispute at trial that blank M-Systems USB storage devices (branded as DiskOnKey) were sold in the U.S. prior to Mr. McNulty’s invention. *E.g.*, Trial Tr. 166:15-167:7, 224:1-8, 228:8-14, 231:8-18 (McNulty); *id.* at 690:5-19, 690:25-691:22, 692:818 (Ash); *id.* at 699:912 (Klein); *id.* at 701:22-702:3 (Harkabi) (“It was sold as a plain storage, personal storage at very low capacity....So it was not even relevant at that point in time.”). But there was also no dispute that blank DiskOnKey devices do not invalidate. *See, e.g.*, Trial Tr. 1357:24-1358:1 (“And this document indicates the DiskOnKey was introduced, actually, quite early in November of 2000.

*Now, remember, that alone is not enough.*)<sup>10</sup> Instead, Ingenico rooted its invalidity case in a firmware upgrade application that Ingenico alleged was separately made available for download from a website.<sup>11</sup> Substantial evidence does not support an invalidity verdict, either under § 102(b) (Ingenico’s primary theory) or § 102(a) (a theory Ingenico ended up abandoning).<sup>12</sup>

**a. There was No Evidence That the Firmware Upgrade Application Was “In Public Use” Under § 102(b)**

Ingenico presented no evidence of any “*actual use* by someone at some point” of the firmware upgrade application, a requirement for finding that it was “in public use...in this country” under § 102(b). *Minn. Mining*, 303 F.3d at 1307. At most, Ingenico presented evidence that a download link for some version of a firmware upgrade application was present on the web site of M-Systems, an Israeli company. But Ingenico introduced *no* evidence that anyone ever accessed the site, downloaded the application, or actually used it, much less in this country. Nor did Ingenico present evidence as to what (if any) version of the application was actually downloadable from the website link.<sup>13</sup> Instead, Ingenico misled the jury by flipping its burden to show invalidity on its head, with Mr. Geier repeatedly testifying that he saw no evidence that information was *not* public.

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<sup>10</sup> See also *id.* at 780:25-781:14 (asserted art was DiskOnKey “*used with the...firmware update application*”), 1298:22-1299:14 (instructions identified prior art as “the M-Systems DiskOnKey product, *along with* the Firmware Upgrade Software, and the M-Systems DiskOnKey [SDK]”), 1360:24-1361:2, 1363:7-10 (“The Patent Office did know something about DiskOnKey....[T]his [] is the web page that talks about just the DiskOnKey, *not the firmware upgrade.*”).

<sup>11</sup> Ingenico also presented an SDK that purportedly was used to design the firmware upgrade application, both as part of the firmware upgrade application anticipation theory and, alternatively, in combination with the application as an obviousness theory. See Trial Tr. 859:22-860:12, 869:8-23. As discussed below, neither was supported by substantial evidence.

<sup>12</sup> As discussed below, Ingenico’s § 102(a) theory also requires rejecting Mr. McNulty’s conception and diligence, which was not supported by substantial evidence and for which improper jury instructions alternatively justify a new trial. See *infra* §§ V.A.1.e, V.B.1.a.

<sup>13</sup> Ingenico demonstrated a supposed version of the firmware upgrade application at trial, but there was *no* evidence—documentary or testimonial—that it matched what was allegedly available for download on the M-Systems web site at any particular time.

See Trial Tr. 915:23-916:8 (“I don’t remember any evidence showing [DX-331] was never released.”); *id.* at 908:15-913:24 (“I didn’t hear [Mr. Sobol] say that [DX-336] was never presented.”) (“I don’t have the information to show [DX-336] was not provided publicly.”).

Regardless, simply making a product ‘available’ is insufficient, as a matter of law, to support a finding that it was “in public use.” See *Minn. Mining*, 303 F.3d at 1307; see also *Civix-DDI, LLC v. Cellco P’ship*, 387 F. Supp. 2d 869, 896 (N.D. Ill. 2005) (“[Defendant] argues that § 102 requires only that prior art be ‘publicly available’ in order to be a public use. [Defendant] is wrong.”). In *Minn. Mining*, there was “evidence in the record that samples of [the prior art product] were sent to various corporations” but, like here, “there was no evidence of their use.” *Id.*<sup>14</sup> The Federal Circuit reversed the district court’s denial of JMOL of no invalidity—in other words, the Federal Circuit directed a verdict of *no* invalidity—because without “**direct evidence of... use...** there is not substantial evidence to overcome the presumption of validity and support a jury finding of use.” *Id.* Ingenico pointed to an internal M-Systems e-mail—sent only to M-Systems employees—that discussed “[REDACTED]” DX-330. But there was *no* evidence that anything was actually passed along to anyone, which is an even weaker record than what was found insufficient in *Minn. Mining*, where actual samples “were sent to various corporations.” 303 F.3d at 1307. The internal e-mail is even more clearly insufficient where evidence that the firmware upgrade application was **actually used** is completely absent from the record. *Id.*

Further, although the purpose of the firmware upgrade application was supposedly to upgrade DiskOnKey devices “with the most up-to-date firmware version,” DX-402, there was no

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<sup>14</sup> This discussion in *Minn. Mining* appears in the section on § 102(a), but the court referred back to this same analysis to find insufficient evidence of public use under § 102(b). 303 F.3d at 1307.

evidence presented that any firmware update was ever actually made available by M-Systems using the firmware upgrade application. In fact, the only evidence of record suggests the exact opposite. An internal M-Systems “DiskOnKey Upgrade” presentation last modified on [REDACTED] before Mr. McNulty’s one-year cutoff date, stated:

[REDACTED]  
[REDACTED]  
[REDACTED]

DX-336 at 5-6. The prospective statement expressing hope that “[REDACTED]” indicates that, at least as of [REDACTED], the DiskOnKey Upgrade had not actually been used.<sup>15</sup> This statement is fully consistent with the complete lack of evidence of any actual use of the firmware upgrade application.<sup>16</sup>

Indeed, reputable evidence of M-Systems’ business indicates that the firmware upgrade application was *not* in public use. Ingenico contended that the firmware upgrade application was released in July 2002. However, M-Systems’ 2002 SEC Annual Report, filed June 30, 2003 for the fiscal year ended December 31, 2002, makes no mention of DiskOnKey firmware or any ability to upgrade or update it. *See generally* DX-091.<sup>17</sup> The 2002 SEC Annual Report repeatedly

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<sup>15</sup> And no evidence was presented suggesting that the DiskOnKey Upgrade was used between [REDACTED] and Mr. McNulty’s March 24, 2003, critical date.

<sup>16</sup> Like the firmware upgrade application, there was no evidence of any actual use of the SDK. It was not provided with DiskOnKeys and instead was supposedly separately made available “to *select* partners and software development companies” by request. *E.g.*, DX-307 (“To request the SDK, please contact M-Systems...”). There was no evidence that any request was ever made. And as Mr. Geier conceded, “I can’t name a person that downloaded [the SDK] during that time,” although he then misled by speculating “but it was made available.” Trial Tr. 917:22-918:11.

<sup>17</sup> The word “firmware” does not appear. Only one form of “upgrade” appears anywhere and it suggests that when customers want to upgrade, they should buy a new device. *See* DX-091 at 22 (“Our products are available in modular form, which enables our customers to easily upgrade from one of our flash disks to another...”). Forms of “update” appear four times, with none in reference to DiskOnKey. *See* DX-091 at 2, 10, 21. The report also makes no mention of an SDK.

discusses *other* applications for the DiskOnKey from the same time period, with no mention of any firmware upgrade application. *See* DX-091.22, 26-27 (referencing KeySafe and MyKey).

Nor was there any evidence of public use “in this country.” At trial, Mr. Geier pointed out that M-Systems had a U.S. subsidiary in 2002. *E.g.*, Trial Tr. 937:5-938:13 (discussing DX-091). However, the evidence reflected that, while M-Systems did “lease office space for our sales offices in...California..., [the] leases for sales offices [were] not material to [its] operations.” DX-091 at 33. Instead, M-Systems’ “headquarters’ executive offices, research, development and manufacturing facilities [were] located in...Israel.” *Id.* Crucially, there was no evidence or even suggestion that any M-Systems web site servers or firmware upgrade servers were in the U.S. In other words, there was no evidence that any firmware update application ever made its way into “this country,” and no evidence that the claimed “communications network node” in the system of ’703 Claims 105 and 124 was known, used, or on sale “in this country” under any of Ingenico’s § 102 theories. Mr. Geier pointed out that the internal e-mail discussing “[REDACTED]” to customers included M-Systems employees in California. *See* Trial Tr. 939:12-940:2 (discussing DX-330). But, as discussed above, there was no evidence that any information was ever disseminated, whether in California or elsewhere. The lack of evidence on the issue of “in this country” was unsurprising because Mr. Geier incorrectly believed it was irrelevant to § 102 whether knowledge, use, or sale was in the U.S. *See id.* at 906:6-19.

Finally, even if there were evidence that the firmware upgrade application was used in this country (which there is not), it still would not constitute public use under § 102(b) because it would not have informed the public of Mr. McNulty’s invention. As discussed above, public use under § 102(b) is treated differently depending on whether the use is associated with the applicant or if it is by an unrelated third-party. *See supra* IV.D.1. Here, there was no evidence that the firmware



upgrade application was in any way designed, disclosed, or provided by Mr. McNulty.<sup>18</sup> Thus, because the allegedly invalidating use was by a third party, the use must have put the *invention* in the public’s possession, such that “members of the public” were “informed of” and able to “readily discern” the invention’s “claimed features.” *Dey*, 715 F.3d at 1359; *see also supra* IV.D.1.

Here, there was *no* evidence that the firmware upgrade application informed the public of the “claimed features” of Mr. McNulty’s invention. Ingenico’s heavy reliance on a high-level ReadMe document describing how to use the application—rather than the technical details of how it actually worked—is insufficient. *See I-800-Flowers*, 120 F. Supp. 3d at 616 (“high-level disclosure” not sufficient to “place the claimed features...in the public’s possession” where “key claimed features were not displayed/disseminated/discussed”); *cf. Intuit*, 2014 WL 2809841, at \*6 (“When the ‘inner workings’ are the essence of the invention, it is those ‘inner workings’ that must not be suppressed or concealed....”). For example, Mr. McNulty’s invention requires specific claimed program codes, including “program code which is configured to be *executed by the portable device processor* in response to a communication received by the portable device resulting from user interaction with the interactive user interface.” *E.g.*, ’969 Claim 3. But there was no evidence that the firmware upgrade application required program code to be *executed by a processor on the DiskOnKey*. That the firmware upgrade application *could* have been implemented that way is insufficient. *See IBM*, 271 F. Supp. 3d at 681 (“Defendants’ references show that the [prior art] system *could have been configured* on a network, but none of Defendants’ references show *actual use of that combination*.”). This is particularly true where the evidence reflected that the firmware upgrade application could have been—and indeed more likely was—

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<sup>18</sup> Again, this distinguishes this situation from the Court’s reading of *Egbert* as a third-party case. The question here is not the extent to which Mr. McNulty maintained control over his invention, as was the case in *Egbert*. *See Dey*, 715 F.3d at 1359 (discussing *Egbert*).



handled by an ASIC, which both parties' experts agreed means that no program code would be executed on a DiskOnKey processor. *See* DX-336 at 4 [REDACTED]

[REDACTED]),<sup>19</sup> Trial Tr. at 1064:4-1066:11 (“[An ASIC is] hardware, it’s not software.”), 1071:3-11, 1116:2-12 (“Q. Does an ASIC run program code? A. No.”); *id.* at 1134:11-16 (“[Dr. Rubin] explained an ASIC correctly. It’s hardware.”).<sup>20</sup> Further, Mr. Harkabi, who worked on the DiskOnKey, explained that he was aware of an early upgrade feature that existed but that it was “[n]ot as an application,” further indicating that it did not require execution of program code by a DiskOnKey processor. *See* Trial Tr. 700:24-701:5.

With no evidence of actual use, instead evidence to the contrary, and no evidence that had such use occurred it would have informed the public of the invention, substantial evidence cannot support a verdict based on the firmware upgrade application being “in public use” under § 102(b).

**b. There Was No Evidence That the Firmware Upgrade Application Was “On Sale” Under § 102(b)**

There was no evidence presented at trial that the firmware upgrade application was ever “on sale in this country” under § 102(b). To be “on sale,” the application must have been “the subject of a commercial offer for sale,” which is an offer that another “party could make into a binding contract by simple acceptance (assuming consideration).” *BASF*, 955 F.3d at 969 (citing *Pfaff*, 525 U.S. at 67); *Merck*, 822 F.3d at 1351; *see also supra* IV.D.2.

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<sup>19</sup> The 2002 SEC Annual Report confirmed that the DiskOnKey used an ASIC. *E.g.*, DX-091 at 11 (“We rely on third parties to manufacture and supply...the application specific integrated circuit (‘ASIC’) components used in our DiskOnKey...”).

<sup>20</sup> Mr. Geier speculated that it would be too costly to “make a different ASIC for each device and program each one with the unique public key.” Trial Tr. 1134:25-1135:2. But the documentation Mr. Geier relied on suggested that is how it was done anyway: [REDACTED]

[REDACTED]). DX-333 at 72.

Although Ingenico presented evidence suggesting that blank DiskOnKey *devices* were sold, no evidence indicated that they were sold in combination with the *firmware upgrade application* or that the *firmware upgrade application* was ever on sale. Instead, the evidence indicated only that some version of the firmware upgrade application may have been *separately* made available for download—ostensibly for free and without consideration—on the M-Systems web site. *See* DX-402 (archived web site); *see also* DX-330 (internal e-mail suggesting that the upgrade application [REDACTED]). But “[a]cceptance’ of free product, absent further communication regarding contract terms, would not create a binding contract [and] is not enough to trigger the on-sale bar.” *Ni-Q, LLC v. Prolacta Bioscience, Inc.*, 407 F. Supp. 3d 1153, 1164–69 (D. Or. 2019); *see also Plumtree Software, Inc. v. Datamize, LLC*, 473 F.3d 1152, 1161 (Fed. Cir. 2006) (“A commercial sale or offer for sale necessarily involves consideration.”). Further, even if M-Systems made the firmware upgrade application available in order to sell more DiskOnKey devices or if DiskOnKey device customers would benefit from having access to the firmware upgrade application, neither would be sufficient to put the firmware upgrade application “on sale,” as a matter of law. *BASF*, 955 F.3d at 969 (“[C]ommercial benefit—even to both parties in a transaction—is not enough to trigger the on-sale bar of § 102(b).”).

Ingenico relied heavily on a “press release” that listed MSRPs, claiming incorrectly during Rule 50(a) argument that “you have the offering of all of it together, the upgrade, and the device that is to be upgraded all together with pricing and everything.” *See* Trial Tr. 1162:12-1163:23. But those prices were for different storage capacities of *blank* DiskOnKey devices, not prices for the firmware upgrade application. *See* DX-097 (listing prices for the “8, 16, 32, 64, 128, 256, and 512MB DiskOnKey”). And there was no evidence whatsoever that the firmware upgrade application came bundled with or pre-loaded on DiskOnKeys. Instead, the “press release,” like all

the other evidence, reflected that the upgrade functionality could be *separately* explored “by visiting [www.diskonkey.com](http://www.diskonkey.com).” *Id.*; *see, e.g.*, DX-330; DX-402. This evidence is insufficient because, as the Federal Circuit has recognized, providing price quotations for one product, even if intended to be used with another product, does not as a matter of law constitute an offer for sale of the two products collectively. *Smith*, 658 F. App’x at 1027-28. In *Smith*, the question concerned whether a claim limitation requiring a tether was met. *Id.* at 1027.<sup>21</sup> Evidence was presented showing an advertisement for a “Twin-Man” product that “state[d] a price” and “provide[d]...contact information for the purchase of the product.” *Id.* at 1028. The advertisement showed the Twin-Man product being used with a tether and there was even testimony that the “Twin-Man could not be used without the tether.” *Id.* Nevertheless, the Court found that the advertisement made “no reference to the Twin-Man and tether being *offered for sale collectively*” and that there was no evidence that anyone “issued price quotations to specific customers for the sale of the Twin-Man *with a tether*.” *Id.* at 1029. Similarly, neither the “press release” nor any other evidence here shows that DiskOnKey devices *with the firmware upgrade application* were ever on sale.

Moreover, although Ingenico did a partial demonstration of a version of the firmware upgrade application, it presented no evidence that that particular version was ever on sale, much less at any particular time. Instead, Ingenico argued that *some* version of the application was available for download online and relied on several separate documents to establish its supposed

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<sup>21</sup> *Smith* addressed an infringing offer for sale, but applied the same “commercial offer” standard as here. *See* 658 F. App’x at 1027-28 (“A party offers to sell an infringing product when it communicates a ‘willingness to enter into a bargain, so made as to justify another person in understanding that his assent to that bargain is invited and will conclude it.’” (quoting *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon, Corp.*, 420 F.3d 1369, 1376 (Fed. Cir. 2005))); *see also* *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1254 (Fed. Cir. 2000) (analysis of “offer to sell” under § 271(a) and § 102(b) both “invoke the traditional contractual analysis”).

features. But there was no evidence establishing the extent to which the documents reflected the features of the version that supposedly was available for download at any relevant time. “It was [Ingenico’s] burden—not [IOENGINE]’s—to show that there aren’t any relevant differences between the [application] described by the [documents] and the [application supposedly available for download]....” *Navico Inc. v. Garmin Int’l, Inc.*, No. 216CV00190JRGRSP, 2017 WL 3750252, at \*4–5 (E.D. Tex. July 28, 2017), *report and recommendation adopted*, No. 216CV00190JRGRSP, 2017 WL 3764213 (E.D. Tex. Aug. 29, 2017).

Further, the “press release” is nothing more than an advertisement, which, as a matter of law, does not trigger § 102(b). *See Minn. Mining*, 303 F.3d at 1307 (“[P]romotional activity not rising to the level of a contractual offer for sale cannot trigger the on-sale bar.”); *Grp. One*, 254 F.3d at 1048 (“[M]ere advertising and promoting of a product may be nothing more than an invitation for offers, while responding to such an invitation may itself be an offer.”); *see also Speedtrack, Inc. v. Wal-Mart Stores, Inc.*, No. C 06-7336 PJH, 2012 WL 581338, at \*3–4 (N.D. Cal. Feb. 22, 2012), *aff’d sub nom. Speedtrack, Inc. v. Endeca Techs., Inc.*, 524 F. App’x 651 (Fed. Cir. 2013). Notably, the “press release” simply invited interested customers to seek out DiskOnKey *devices*—not the firmware upgrade application—for sale and purchase.<sup>22</sup> To the extent anyone who read the “press release” wanted to buy a DiskOnKey, the press release simply directs potential customers to third party retailers, and invites them to visit the DiskOnKey website

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<sup>22</sup> *See Silver State Intell. Techs., Inc. v. Garmin Int’l, Inc.*, 32 F. Supp. 3d 1155, 1171 (D. Nev. 2014) (“[The press release] refers consumers to retail stores and [the company’s] phone number or website to make a purchase. It thus appears to be an advertisement directed at the general public, and as such constitutes an invitation for offers, not a firm offer for sale.”). The DiskOnKey press release was also indiscriminate and unsolicited. *See Merck*, 822 F.3d at 1351 (a fax sent in direct response to a purchase request constituted an offer for sale because it was “not an unsolicited price quote sent to numerous potential customers” and “‘a relevant factor’ in determining whether an offer has been made is ‘the number of persons to whom a communication is addressed’” (quoting Restatement (Second) of Contracts § 26, cmt. c)).

only “for additional information”—not to consummate a purchase. DX-097.<sup>23</sup> The press release provides no way to enter into “a binding contract by simple acceptance.” *BASF*, 955 F.3d at 969.<sup>24</sup>

Finally, as discussed above, the 2002 SEC Annual Report makes no mention of the firmware upgrade application being sold or on sale, despite describing *other* software applications for the DiskOnKey in the same time period. *See* DX-091.22, 26-27.

Ultimately, with no evidence that anything other than blank DiskOnKey devices (without the firmware upgrade application) were sold, and nothing resembling an offer for sale of the firmware upgrade application, substantial evidence cannot support a verdict based on the firmware upgrade application being “on sale” under § 102(b).<sup>25</sup>

### c. **Ingenico Abandoned Its § 102(a) Firmware Upgrade Theory**

Throughout trial, Ingenico’s presentation of evidence regarding the firmware upgrade application focused on its availability as § 102(b) art, based on a critical date of March 23, 2003

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<sup>23</sup> When discussing advertisements versus offers for sale during Rule 50(a) argument, counsel for Ingenico argued that a toothbrush at Walgreens is on sale just like how, on Amazon.com, “everything is for sale....” Trial Tr. 1275:10-17. But the ubiquity of buying products online today does not mean something available for download on the Internet in the early 2000s was on sale. In any event, there’s nothing like Walgreens or Amazon.com here. Instead, we have a manufacturer announcing a new *toothpaste* in a press release and then providing prices for *toothbrushes* that are separately available at Walgreens or on Amazon.com.

<sup>24</sup> By analogy, the mere posting of information or advertisements on a website without further commercial interactivity (such as the ability to place orders, make payments, or engage in business transactions) is insufficient to confer personal jurisdiction. *See, e.g., Ackourey v. Sonellas Custom Tailors*, 573 F. App’x 208, 212 (3d Cir. 2014); *inno360, Inc. v. Zakta, LLC*, 50 F. Supp. 3d 587, 595 (D. Del. 2014); *see also M2M Sols. LLC v. Simcom Wireless Sols. Co.*, 935 F. Supp. 2d 740, 745 (D. Del. 2013) (“At best, the web-site information can be understood as an invitation to deal, but it is a basic precept of contract law that an invitation to deal is not an ‘offer for sale.’”).

<sup>25</sup> Like the firmware upgrade application, there was no evidence that the SDK was ever “on sale.” There was no evidence of any pricing for the SDK nor any indication it was ever provided in combination with DiskOnKey devices. Instead, the only evidence indicated it may have been separately obtainable by “*select* partners and software development companies,” only by request, and there is no evidence it was ever actually provided to anyone. *See* DX-307.

(one year before the filing date). By contrast, Mr. McNulty's invention date (no later than July 26, 2001) preceded nearly all of Ingenico's DiskOnKey evidence and *all* of its firmware upgrade evidence. And Ingenico's challenges to conception and diligence were either half-hearted or non-existent. The reason for this became clear in closing, when Ingenico affirmatively abandoned any attempt to qualify the firmware upgrade application as § 102(a) art:

Now, I want to emphasize that [for] DiskOnKey, its prior art *simply because it's dated before March 23, 2003*.

Mr. McNulty's invention date its *irrelevant* to that. Mr. McNulty's conception date is *irrelevant* to that. Mr. McNulty's reduction to practice is *irrelevant* to that.

If it's before March 23, 2003, it is prior art.

Trial Tr. 1362:5-11.<sup>26</sup> Ingenico's statement in closing affirmatively waived any § 102(a) theory with respect to the DiskOnKey firmware upgrade application. If Ingenico were relying on a § 102(a) theory, counsel's statements to the jury that conception and reduction to practice are "irrelevant" and that DiskOnKey is prior art "simply because it's before March 23, 2003," would be irreparably improper and misleading. They are also indicative of the lack of substantial evidence supporting a verdict based on the firmware upgrade application being § 102(a) art.

**d. Substantial Evidence Does Not Support a Verdict That the Firmware Upgrade Application was § 102(a) Prior Art**

Whether or not Ingenico abandoned its § 102(a) firmware upgrade theory, substantial evidence does not support the theory under any circumstances (regardless of the date of invention). Similar to the failure of proof that the firmware upgrade application was "in public use or on sale in this country" under § 102(b), the evidence presented at trial cannot support a verdict that the firmware upgrade application was "known or used by others in this country" under § 102(a).

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<sup>26</sup> There was no other mention of invention date, conception date, or reduction to practice during Ingenico's closing. *Id.* at 1338:5-1365:16.

Knowledge or use of an invention under § 102(a) must be “accessible to the public.” *Supra* IV.E. Here, as discussed above with respect to § 102(b), the firmware upgrade application evidence did not show **public accessibility** of Mr. McNulty’s invention, at least because there was no evidence anyone ever used the firmware upgrade application and the evidence describing the application failed to enable various aspects of the invention. *See supra* V.A.1.a.<sup>27</sup>

As for “used by others,” § 102(a), like § 102(b), requires “**actual use** by someone at some point” of the firmware upgrade application. *Minn. Mining*, 303 F.3d at 1307. Thus, for the reasons above, substantial evidence does not support a verdict based on the firmware upgrade application being “used by others in this country.” *See supra* V.A.1.a. For example, in *Ex Parte Bokhari*, the BPAI considered whether evidence that a version of allegedly invalidating software was “uploaded to a Web site, apparently, in the United Kingdom” and made available for download could show knowledge or use by others in this country. 2010 WL 4740064, at \*3. The BPAI found the evidence insufficient because—like here with the firmware upgrade application—software available for download is not evidence that it “**was** downloaded.” *Id.* Also, both here and in *Bokhari*, there was no evidence that the software available for download had “features identical to those described in the” supposedly associated instructional documentation. *Id.*

To be “known...by others” under § 102(a), the disclosure must be “sufficient to enable [a POSITA] to reduce the invention to practice.” *See supra* IV.E.1. Here, as in *Parallel Networks*, public access to a product is insufficient if access to that product does “not amount to public access to the *invention*.” 2017 WL 1045912, at \*9. In *Parallel Networks*, the public could access a network server, but the inner workings of the server were obscured and therefore did not show

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<sup>27</sup> Further, as discussed below, to the extent the firmware upgrade documentation was publicly accessible, Ingenico’s invalidity case should have been barred by IPR estoppel. *See infra* V.B.2.



publicly accessible knowledge or use of the invention. *Id.* Similarly, here there was no publicly accessible knowledge or use of the invention because there was no evidence showing how the firmware upgrade application actually worked—in fact, no code evidencing the application’s operation was presented to the jury. With no proof of the presence of the specifically claimed program codes, on which memory each such code resides, and by which processor each such code is executed, there was no evidence that the claimed invention was “*known*...by others” because a POSITA would not have been taught to make or carry out the specific structure of the claims.

**e. Disregarding Mr. McNulty’s July 2001 Conception and Subsequent Diligence Is Not Supported by Substantial Evidence**

The *only* evidence at trial concerning DiskOnKey that preceded Mr. McNulty’s conception date (no later than July 26, 2001) related to blank DiskOnKey devices with *no* mention of the firmware upgrade application, and which Ingenico conceded was “not enough.” *See, e.g.*, Trial Tr. 1357:24-1358:1; *see also* 780:25-781:14, 1298:22-1299:14, 1360:24-1361:2, 1363:7-10.<sup>28</sup>

As such, any verdict based on the firmware upgrade application as § 102(a) art requires rejecting Mr. McNulty’s July 2001 invention date and instead accepting Ingenico’s argument that Mr. McNulty did not invent until March 23, 2004, when he filed his patent application.<sup>29</sup> As the law makes clear, once IOENGINE satisfied its burden of production, it was Ingenico’s burden, by clear and convincing evidence, to prove that Mr. McNulty was *not* entitled to his invention date.

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<sup>28</sup> The earliest evidence of the firmware upgrade application was not until [REDACTED]. DX-328 (executable file), DX-329 (associated metadata). [REDACTED] *See* Trial Tr. 826:6-827:2.

<sup>29</sup> The jury was presented with just two potential dates of invention: no later than July 26, 2001 (IOENGINE) or March 23, 2004 (Ingenico). Trial Tr. 1296:6-24. The jury was told that it could pick a different date if “persuaded that the evidence demonstrates a different date of invention.” Trial Tr. 1297:10-13. But no evidence was presented of any other invention date.



*See supra* IV.C. To the extent the jury’s invalidity verdict depends on Ingenico having satisfied this burden, the verdict was not supported by substantial evidence.<sup>30</sup>

“Conception requires formation of a definite and permanent idea of the complete and operative invention in the [inventor’s] mind.” *E.I. du Pont De Nemours & Co. v. Unifrax I LLC*, 921 F.3d 1060, 1075 (Fed. Cir. 2019). Diligence must be “reasonably continuous,” but does not require working “every day” towards a reduction to practice. *Perfect Surgical Techniques, Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1009 (Fed. Cir. 2016). Corroboration is not required “on every aspect of conception and reduction to practice.” *E.I. du Pont*, 921 F.3d at 1077.

The evidence on conception was more than sufficient to satisfy IOENGINE’s burden of production. The jury heard that Mr. McNulty attended the June 2001 PC Expo in New York and had his “light bulb” moment when visiting a trade show booth. *Supra* III.A. His testimony was corroborated by the PDR memo, in which Mr. McNulty described his invention. *Id.* All of this was confirmed by Mr. Rzonca, who attended PC Expo with Mr. McNulty and saw a version of PDR shortly thereafter. *Id.* PDR corroborated that Mr. McNulty had formed in his mind a “definite and permanent idea of the complete and operative invention.” *See E.I. du Pont*, 921 F.3d at 1075. Mr. McNulty walked through the claim elements one-by-one, explaining how each was part of his invention and how they were present in PDR. *Supra* III.A. Dr. Rubin confirmed that the same was true from a POSITA’s perspective. This satisfied IOENGINE’s burden of production to show Mr. McNulty’s complete conception by no later than July 26, 2001, the date on the face of PDR.

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<sup>30</sup> The presentation of evidence at trial suggests that the jury’s verdict did not depend on rejecting Mr. McNulty’s July 2001 conception and subsequent diligence, and instead based invalidity solely on the firmware upgrade application as § 102(b) art (including because Ingenico abandoned its § 102(a) theory for the firmware upgrade application and because of the lack of attention devoted to it). To the extent the jury did disregard Mr. McNulty’s July 2001 conception and subsequent diligence, they were led to do so by the jury instructions, which erroneously suggested that it was IOENGINE’s burden to prove conception and diligence. *See infra* V.B.1.a.

As all of this evidence was uncontroverted, substantial evidence could not have supported a finding that Ingenico disproved the circumstances of Mr. McNulty's conception by clear and convincing evidence. The only challenge Ingenico made to Mr. McNulty's conception was whether PDR disclosed portable device identifier information and facilitating portable device verification. For these elements, Mr. McNulty and Dr. Rubin pointed to the same portion of PDR:

The user clicks yes and code on *the portable device* works it[s] way through the computer to the internet and contacts a web site and says Hi. I am here from a persons pocket and I would like to copy your content.

*Supra* III.A; PX-235. With respect to the "portable device identifier information," both Mr. McNulty and Dr. Rubin explained that the word "I" identifies the portable device that was running the code to send the communication. *Supra* III.A; *see also* Trial Tr. 208:14-19 (McNulty) (the focus of the "I" is code coming from the portable device); 1060:15-16 (Rubin) ("And so what Mr. McNulty is saying in this memo is there is a portable device and it's talking to a server.").

As for facilitating verification, Mr. McNulty and Dr. Rubin both explained that the portable device in PDR is *seeking permission* to copy content from a website. Mr. McNulty explained that "it's basically code going up to the cloud looking for verification, I'd like to copy you." Trial Tr. 208:12-13. Dr. Rubin added: "And one of skill in the art, looking at the request to copy content, would know that you wouldn't just give content to anyone, you would verify." *Id.* at 1060:18-21.

Ingenico's response on these points was limited to conjecture from Mr. Geier. His testimony focused on verification and said little about portable device identifier information. *See generally* Trial Tr. 865:6-867:14, 1131:21-1133:6, 1143:23-1146:5. What little he did say on device identifier was simply inconsistent with PDR, arguing that "the word 'I' means a name of somebody..., not the device. *Id.* 866:24-867:4. This unsupported supposition is not substantial evidence. *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1152 (Fed. Cir. 2004) ("General and conclusory testimony...does not suffice as substantial evidence of invalidity."); *see also SRI*

*Int'l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1307 (Fed. Cir. 2019) (expert testimony insufficient to survive summary judgement where “both inconsistent and based on multiple layers of supposition”). PDR clearly distinguishes between the “somebody” the device belongs to and the device itself when it contrasts “I” with “from a persons pocket.” See PX-235-0001 (“[C]ode on **the portable device**...says Hi. **I** am here **from a persons pocket**....”). Mr. Geier further argued that nothing indicated that the identifier “I” “could be different for any other device.” Trial Tr. 866:24-867:4. But while the language of PDR is colorful and illustrative,<sup>31</sup> it plainly conveys that a portable device communicates with a server (“[C]ode on the portable device...contacts a web site and says Hi.”) and provides information identifying itself (“I am here from a persons pocket”).

Regarding facilitating verification, Mr. Geier tried to disagree with Mr. McNulty and Dr. Rubin, but his words betrayed him. Although Mr. Geier claimed that “**Hi, I am here from a persons pocket**,” did not teach facilitating verification, his testimony regarding the asserted prior art was directly opposite. Specifically, Mr. Geier admitted that “a very well known method” of verification would involve “a challenge response.” He then provided an example where a server says to a portable device, “**Hi, I’m the server**,” closely corresponding to the language of PDR. Trial Tr. 1140:13-1141:15, 1143:23-1145:13. In addition, Mr. Geier’s testimony focused on “I am here from a persons pocket” and did not specifically address Mr. McNulty’s and Dr. Rubin’s testimony regarding “I would like to copy your content.” See generally Trial Tr. 865:6-867:14, 1131:21-1133:6, 1143:23-1146:5. So, while the jury heard Mr. Geier try to explain that “I am here

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<sup>31</sup> PDR was plainly written in an informal manner, as both Mr. McNulty and Dr. Rubin explained. E.g., Trial Tr. 208:9-11 (“This is a very friendly way of saying...”), 1060:17-18. But the law does not require formal language for corroboration of conception. See *Fleming v. Escort Inc.*, 774 F.3d 1371, 1377 (Fed. Cir. 2014) (although “none of the corroborating evidence constitutes definitive proof of [inventor’s] account or discloses each claim limitation as written,...the corroboration requirement has never been so demanding” and instead is a “flexible, rule-of-reason”).

from a persons pocket” *alone* may not teach facilitating verification, he offered nothing but vague and conclusory testimony on what the PDR sentence as a whole supposedly did and did not teach. The *only* competent evidence on the complete PDR disclosure was from Mr. McNulty and Dr. Rubin, explaining that the portable device identifying itself and seeking permission *together* showed facilitating verification. *E.g.*, Trial Tr. 208:12-13 (McNulty), 1060:18-21 (Rubin).<sup>32</sup>

Ultimately, IOENGINE came forward with abundant evidence of conception, including that PDR corroborated the “portable device identifier information” and “facilitating portable device verification” limitations. The trial record does not support any verdict premised on proof by Ingenico, by clear and convincing evidence, that those limitations were *not* disclosed in PDR and that Mr. McNulty did *not* conceive of his invention by July 26, 2001.

The same is true of diligence, which was supported by extensive testimony from Mr. McNulty, corroborated by documents and other witnesses, and uncontroverted by Ingenico. *Supra* III.A. Mr. McNulty worked on initial prototypes with Dr. Bernstein from August 2001 to early 2003 and was in contact with him “[j]ust about every week.” Trial Tr. 157:7-162:25. Mr. McNulty also worked continuously with other vendors on additional prototypes from late 2002 through the filing of his patent application. *E.g.*, Trial Tr. 169:24-170:5; *see also id.* at 174:8-11 (“Q. [H]ow often did you interact with the vendors...? A. You know, every evening, every weekend, all weekend. It was nonstop for me.”). Finally, he constructively reduced his invention to practice with the filing of his first patent application on March 23, 2004. *Supra* III.A.

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<sup>32</sup> Regarding Mr. Geier’s and Ingenico’s analogy of presenting an ID card for entrance to the courthouse, if a person simply said “Hi, I’m here from Houston” and did not seek permission to enter, that might not teach facilitating verification. But, just as courthouse security faced with someone trying to enter the building would perform verification (*e.g.*, by comparing a photo ID against a person’s appearance), a web site that is *granting permission* to copy content would do the same (*e.g.*, by comparing device credentials against a list of authorized devices).

Again, none of this testimony was challenged by Ingenico.<sup>33</sup> Rather, as discussed above, in closing, Ingenico argued to the jury that conception and reduction to practice were “irrelevant” with respect to the DiskOnKey art. Trial Tr. 1362:5-11. The attempt to cast conception and diligence as irrelevant, rather than challenge them, reflects that substantial evidence does not support any verdict premised on Ingenico proving by clear and convincing evidence that Mr. McNulty is not entitled to his July 2001 invention date.

**f. Substantial Evidence Does Not Support Anticipation or Obviousness Based on the Firmware Upgrade Application**

No invalidity theory presented by Ingenico during trial (whether for anticipation and obviousness) was independent of the firmware upgrade application. Thus, without substantial evidence supporting the firmware upgrade application as prior art under any § 102 category, the jury’s verdict on both anticipation and obviousness must be set aside.

Even assuming that the firmware upgrade application qualified as prior art under §§ 102(a) or 102(b), substantial evidence did not support a verdict by clear and convincing evidence that the firmware upgrade application anticipated or rendered obvious the Asserted Claims. First, as discussed above, because the evidence at trial reflected that the firmware upgrade application was supported by an ASIC and because no evidence of program code associated with the firmware upgrade application was presented, there was no substantial evidence that the firmware upgrade application met the claimed program code limitations, including on which memory each code resides and by which processor each code is executed. *See supra* V.A.1.a, V.A.1.d.

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<sup>33</sup> Ingenico presented some testimony about Mr. McNulty’s separate work for Fuji involving blank M-Systems USB devices and about use of the brand name Medi/o, the relevance of which was not apparent to any issues the jury was asked to decide. There was no challenge to Mr. McNulty’s *ownership* of the claimed invention and none of the Fuji testimony negated any of the evidence reflecting the actions Mr. McNulty took to reduce his invention to practice.

Further, Ingenico relied on PKI based authentication described in the SDK documentation as reflecting how the firmware upgrade application worked. But that supposition, supported by no affirmative testimony or evidence from anyone at the time, conflicted with the evidence regarding version compatibility of the firmware upgrade application and PKI functions. While the firmware upgrade application was purportedly available for DiskOnKey [REDACTED], *see* DX-330, [REDACTED] [REDACTED]. *See* DX-333 at 10 (“[REDACTED]”), 24 ([REDACTED] [REDACTED]). Because the firmware upgrade application purportedly was available for [REDACTED], substantial evidence does not support Ingenico’s contention that the firmware upgrade application used the SDK functions, or that the firmware upgrade application and SDK constituted a single reference. Indeed, the evidence reflected that they were two separate offerings. Perhaps anticipating this, Ingenico proffered Mr. Geier’s testimony on motivation to combine. However, Mr. Geier testified only that a POSITA would be motivated to combine the SDK with *DiskOnKey devices*—not to combine the SDK with the *firmware upgrade application*. *See* Trial Tr. 869:8-23. No evidence reflected a motivation to combine the SDK and firmware upgrade application, and evidence on version compatibility suggests the two were independent. Thus, substantial evidence does not support a verdict of invalidity based on the firmware upgrade application and the SDK, either as a single anticipatory reference or as an obviousness combination.

## 2. A Verdict of Obviousness Based on Elazar Is Not Supported by Substantial Evidence

As discussed above, the overwhelming focus of Ingenico’s invalidity case at trial was the firmware upgrade application. Minimal attention was given to Elazar, which was presented only as a potential obviousness combination with the firmware upgrade application on the issue of

authentication. *See* Trial Tr. 860:13-862:24 (Geier) (“Q: So when you are talking about combining the DiskOnKey, like this patent, what part of this patent are you combining it with? A. There were portions of this that dealt with different ways to authenticate, talking about the DiskOnKey.”), 1363:22-1364:4 (“We’re really only relying upon Elazar as an obviousness combination....[T]o the extent that there was any doubt that there was authentication of, with the DiskOnKey, this fills in the gap.”). Accordingly, to the extent substantial evidence does not support the verdict based on the firmware upgrade application, the verdict must be set aside notwithstanding Elazar.

Further, because Elazar published after Mr. McNulty’s conception date, *see* DX-363, qualifying Elazar as § 102(a) (or (e)) art required finding that Ingenico had proved by clear and convincing evidence that Mr. McNulty is not entitled to his July 2001 invention date. As discussed above, the trial record cannot support a verdict based on that premise. *See supra* V.A.1.e.

In addition, substantial evidence does not support a finding that a POSITA would be motivated to combine the *firmware upgrade application* with Elazar. Mr. Geier’s testimony addressed only motivation to combine Elazar with DiskOnKey devices generally, *not* with the firmware upgrade application Ingenico asserted as necessary prior art. *See* Trial Tr. 862:14-24. There was *no* testimony that addressed combining Elazar with any aspect of the firmware upgrade application. Thus, substantial evidence did not support obviousness based on that combination.

**B. Alternatively, IOENGINE Should Be Granted a New Trial on Other Grounds**

In the event that IOENGINE is not granted judgment as a matter of law of no invalidity or a new trial on the above grounds, IOENGINE should be granted a new trial for two other reasons: (1) there were substantial errors in the jury instructions; and (2) Ingenico’s presentation of the firmware upgrade application was precluded by IPR estoppel.



# 1. There Were Substantial Errors in the Jury Instructions

## a. The Instructions on Conception and Diligence Incorrectly Stated the Legal Burdens

The Court’s jury instruction on conception and diligence failed to correctly inform the jury that Ingenico bore the burden of proof. Instead, it improperly indicated that IOENGINE had to prove conception and diligence, rather than correctly indicating that IOENGINE need only come forward with some evidence on these points and that Ingenico had to prove by clear and convincing evidence that Mr. McNulty did *not* conceive and exercise reasonable diligence. If the jury rejected IOENGINE’s July 2001 invention date it was led to do so by the erroneous instruction.

The law is clear that once a patentee presents some evidence of invention, the challenger “must persuade the jury by clear and convincing evidence that its version of the facts is true.” *Mahurkar*, 79 F.3d at 1578. “In other words, [the challenger] must persuade the jury that [patentee] did not invent prior to [the prior art date]...because...he did not conceive and thereafter proceed with reasonable diligence as required to his filing date.” *Id.* At all times, the challenger retains “the burden of persuasion [by clear and convincing evidence] on the status of the” prior art. *Id.*<sup>34</sup>

The law on this issue, particularly the difference between burdens of production and persuasion, is certainly unfamiliar to a lay jury, which is all the more reason why a clear instruction that the burden of proof was Ingenico’s was necessary. Indeed, the idea that a patentee has *no*

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<sup>34</sup> See also *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1328 (Fed. Cir. 2008) (the “ultimate burden [of proof] never shifts”; once patentee satisfies burden of production, defendant must “convince the [fact finder] that [the patentee] is *not* entitled to the benefit of the earlier...date” such that “if the [fact finder] is not persuaded by clear and convincing evidence that [defendant] is correct, [defendant] has failed to carry its ultimate burden of persuasion” and “its defense of invalidity...fails”); *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 585 F. Supp. 2d 568, 575 (D. Del. 2008) (“[Patentee’s] burden, however, is a burden of production not a burden of persuasion, meaning that the patentee *need not persuade* the fact-finder of the invention date.... Rather, the burden of proof remains on the defendant to establish by clear and convincing evidence that the patentee’s invention date does not precede the date of the ostensible prior art reference.”).



burden to prove conception and diligence, but need only come forward with some evidence, is an odd concept that needs explanation. The instructions did no such thing, instead suggesting that IOENGINE had to prove conception and diligence by discussing them in terms of facts that must be shown by the inventor. *E.g.*, Trial Tr. 1294:23-24 (there is conception “when *the inventor* has a definite idea of the complete and operative invention”), 1295:3-4 (the invention must be sufficiently “clearly defined *in the inventor’s mind*”), 1295:7-11 (the “*inventor* can testify” but “there must be some evidence beyond the inventor’s own testimony”). The instructions also repeatedly referred to “IOENGINE’s *contention*” regarding the date of invention. *Id.* at 1296:15-21. Nothing properly reflected Ingenico’s burden to prove by clear and convincing evidence that Mr. McNulty did *not* conceive in July 2001 and then exercise reasonable diligence, leaving the natural impression that the burden of proof on conception and diligence lay with IOENGINE.<sup>35</sup>

IOENGINE raised this issue during the jury instruction conference, Trial Tr. at 1265:18-1266:12 (“[P]hrased as it is, it makes it seem as if it’s IOENGINE burden to prove conception....”), and suggested a curative instruction. Trial Tr. 1265:18-1266:12 (“Once IOENGINE has put forth some evidence beyond Mr. McNulty’s own testimony that confirms his conception and diligence toward reducing the invention to practice, it is Ingenico’s burden to prove otherwise. This means that Ingenico must prove by clear and convincing evidence that Mr. McNulty did not invent before the date of the alleged prior art.”). The Court overruled IOENGINE’s objection, explaining that it “was conscious of the *Mahurkar* case and...attempted...to incorporate” the legal requirements into the instruction, including “emphasiz[ing] the ultimate burden as being clear and convincing evidence.” *Id.* at 1266:13-18. However, there was just one sentence on Ingenico’s “ultimate

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<sup>35</sup> The necessity of a clear instruction was also important given Ingenico’s attempt to confuse the jury regarding the standards Dr. Rubin used when evaluating PDR. *See* Trial Tr. 1080:3-1086:18.

burden” and it did not solve the problem. It read: “Whatever the date of invention, Ingenico must prove by clear and convincing evidence that the prior art item pre-dated the claimed invention.” *Id.* at 1297:14-16. That sentence, and the instruction as a whole, failed to clearly address the burden for proving *the date of invention* versus proving that *prior art pre-dates the invention date*. By beginning “[w]hatever the date of invention,” that sentence addressed only Ingenico’s burden to prove the latter, without indicating the proper burden for proving the invention date in the first place. Nothing in the jury instructions indicated that Ingenico had the burden, by clear and convincing evidence, to prove that Mr. McNulty was *not* entitled to his July 2001 invention date.<sup>36</sup>

The instruction was highly prejudicial to IOENGINE in that it fundamentally flipped the burden of proof on conception and diligence. To the extent the jury rejected IOENGINE’s conception and diligence, it would have been far easier to do so under the mistaken impression that it was IOENGINE’s burden to prove those facts. By contrast, it would have been much more difficult to reject IOENGINE’s conception and diligence if the jury had been properly instructed that Ingenico had the burden on those facts by clear and convincing evidence.<sup>37</sup>

#### **b. The Court Failed to Instruct on the Presumption of Validity**

It is black letter law—in the Patent Act—that “[a] patent shall be presumed valid.” 35 U.S.C. § 282. The Court refused IOENGINE’s objection that the presumption of validity should be included in the jury instructions. Trial Tr. 389:1-9, 1229:7-1230:16. This was error. Having an instruction on the presumption of validity would have also helped the jury understand that it

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<sup>36</sup> The Court also misspoke multiple times while instructing the jury on the parties’ contentions. *See* Trial Tr. 1296:6-1297:9 (incorrect reference to “Ingenico” at 1296:6 and 1297:1, with only the former corrected). This only worsened the confusion over which party bore the burden of proof.

<sup>37</sup> An invalidity verdict under § 102(b), independent of conception and reduction to practice, is not supported by substantial evidence either (as discussed above), and resulted from an additional erroneous jury instruction justifying a new trial (as discussed below).

was Ingenico's burden to prove otherwise, especially on the issues of conception and diligence discussed above. These substantial errors in the instructions regarding Ingenico's burden to prove invalidity thus could "have changed the result" and were not "harmless." *Verizon*, 503 F.3d at 1307 n.7. As such, IOENGINE is entitled to a new trial.

**c. The Instructions Failed to Correctly Reflect the Requirements for §§ 102(a) and 102(b)**

There was extensive discussion both on and off the record regarding how to properly instruct the jury on the requirements for prior art under § 102. *E.g.*, Trial Tr. 1192:3-1199:2, 1215:14-1229:6, 1235:13-1245:22, 1267:9-1276:1. The final jury instructions failed to state the correct requirements, making it far easier for the jury to find invalidity. Other than the language of the statute, minimal guidance was provided on what is required under § 102:

Now, public use may be found when a prior art product is accessible to the public, commercially exploited, or otherwise used by the inventor or others with no restrictions or obligations of secrecy. Evidence of an offer to sell is sufficient to establish that a prior art product is "on sale." There is no requirement that a sale be completed in order for the product to be "on sale."

Documents and testimony may be evidence of the functions of a prior art product, as long as that evidence is used to demonstrate that a single prior art item contains all of the claim limitations found together. Such documents do not have to be publicly available.

Trial Tr. 1298:10-21. These instructions were erroneous in multiple respects. First, they failed to reflect that where purported use is by a third-party, like here, it is not a "public use" if it is not enabling or does not inform the public of the invention. *See supra* IV.D.1, V.A.1.a. IOENGINE proposed that the jury be instructed that "public use may be found when the claimed features of the invention are discernible from a prior art product that is accessible to the public." Trial Tr. 1271:7-11. The Court overruled the objection, based on a mistaken impression that *Egbert* was a third-party case, not an inventor case. *See id.* at 1271:12-16; *supra* IV.D.1. The failure to properly describe the requisite level of public disclosure was especially problematic given the instruction

that documents describing prior art products “do not have to be publicly available,” which further incorrectly suggested that a third-party’s secret, non-disclosing use could be invalidating.<sup>38</sup> Second, the instructions failed to correctly convey that an advertisement is not an offer for sale. *See supra* IV.D.2, V.A.1.b. The Court declined IOENGINE’s request to include either of two curative instructions: (i) “Only an offer that the other party could make into a binding contract simply by accepting it constitutes an offer for sale”: or (ii) “An advertisement is not an offer for sale.” Trial Tr. 1272:3-22. Given the deficiencies in Ingenico’s § 102 case, these substantial errors permitted an invalidity verdict based on conjecture and supposition. The errors thus could “have changed the result,” were not “harmless,” and warrant a new trial. *Verizon*, 503 F.3d at 1307 n.7.

## 2. **Ingenico Was Estopped Under 35 U.S.C. § 315(e) From Presenting the Firmware Upgrade Application at Trial**

At summary judgment, this Court noted that, with respect to the DiskOnKey, “Ingenico submits that it is relying on documents that...are ‘non-public and not reasonably available.’” D.I. 449 at 63. As such, the Court found that Ingenico was “not estopped from relying on device art *if...that device is not simply a printed publication invalidity theory in disguise.*” *Id.* at 64. Thus, Ingenico was permitted to rely on the DiskOnKey device so long as its theory was “*substantively different* from the grounds that...reasonably could have been raised” in IPR. *Id.*

Ingenico’s invalidity case focused on the firmware upgrade application. *See supra* III.B. Ingenico’s central evidence consisted of a [REDACTED]

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<sup>38</sup> *See W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed. Cir. 1983) (“no reason or statutory basis” where third-party’s “secret commercialization of a process...could be held a bar to the grant of a patent to [the applicant] on that process”); *Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 519 (2d Cir. 1946) (Hand, J.) (where it was “a third person who used the machine secretly and sold the product openly,” the only issue “was whether a prior use which did not disclose the invention to the art was within the statute; and it is well settled that it is not”).

that Ingenico argued was distributed publicly. *E.g.*, Trial Tr. 796:14-797:8 (discussing DX-330, the e-mail attaching DX-331), 798:18-799:6, 1359:4-15.<sup>39</sup> Specifically, Ingenico’s element-by-element claim analysis turned on the operation of the firmware upgrade application with a DiskOnKey, *entirely as depicted by the* [REDACTED]. See Trial Tr. 827:4-859:14. Ingenico’s token reliance on DiskOnKey *devices* added nothing. Instead, as discussed above, Ingenico acknowledged that DiskOnKey devices did *not* prove invalidity and relied on the firmware upgrade application as described in [REDACTED]. Ingenico also attempted to demonstrate a [REDACTED] [REDACTED] See *id.* at 826:6-827:2. Ingenico presented other documents and testimony, which also did not constitute any substantively different invalidity theory, instead serving only as [REDACTED] [REDACTED]. *E.g.*, *id.* at 808:16-820:2 (discussing DX-304, DX-333, DX-336, and the knowledge of a POSITA as support for the [REDACTED]).<sup>40</sup>

The problem is that “the Patent Act distinguishes between grounds and evidence.” See D.I. 361 at 17 (citing *Wasica Fin. v. Schrader Int’l*, 432 F. Supp. 3d 448, 454 (D. Del. 2020), *appeal dismissed*, No. 2020-2124, 2020 WL 8374870 (Fed. Cir. Sept. 24, 2020)). “Since the estoppel provision...applies to *grounds*, a petitioner is estopped from proceeding in litigation on those *grounds*, even if the *evidence* used to support those grounds was not available...in the IPR.” *Id.*

Here, Ingenico’s trial presentation was simply a disguised printed publication theory. And Ingenico’s arguments regarding the public accessibility of its evidence run counter to its basis for

<sup>39</sup> Ingenico also relied on the SDK as supporting evidence, but similarly argued that the SDK documentation (DX-333) was publicly available. See, *e.g.*, Trial Tr. 916:22-919:3.

<sup>40</sup> Meanwhile, the deposition testimony actively undermined Ingenico’s attempt to prove up the firmware upgrade application. See, *e.g.*, Trial Tr. 701:6-8, 702:18-22 (Harkabi); *id.* at 716:22-717:7, 720:13-21, 725:18-22 (Elazar); *id.* at 728:9-12 (Sobol).

opposing IPR estoppel. Ingenico is in a bind. The firmware upgrade application does not satisfy the statutory public accessibility requirements, and proving otherwise runs into IPR estoppel.

Ingenico argued at trial that the [REDACTED] was publicly available, but the consequence is that the document forming the foundation of Ingenico's invalidity theory reasonably could have been raised during IPR (along with other documents Ingenico argued were publicly available).<sup>41</sup> That Ingenico presented additional evidence in support of its firmware upgrade theory does not transform its trial presentation into a "substantively different" invalidity ground from one it reasonably could have raised during IPR. Instead, Ingenico was able to get two bites at the printed publication invalidity apple, contrary to the congressional intent behind IPRs. *E.g.*, D.I. 361 at 22 (citing H. REP. No. 112-98, at 40 (2011) (IPR not "a means to prevent market entry through repeated...attacks on the validity of a patent."); 157 Cong. Rec. S1376 (Mar. 8, 2001) (Sen. Kyl) ("Ideally..., if an [IPR] is instituted while litigation is pending, that review will *completely substitute* for at least the patents-and-printed publications portion of the civil litigation.")).

As such, IOENGINE is entitled to a new trial because Ingenico's trial presentation ran afoul of IPR estoppel under § 315(e).

## VI. CONCLUSION

For the above reasons, IOENGINE respectfully requests that the Court grant its motion for judgment as a matter of law of no invalidity or, in the alternative, grant its motion for a new trial.

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<sup>41</sup> As IOENGINE explained previously, all of the DiskOnKey documents, including those obtained by subpoena, were available via a reasonably diligent search. *See* D.I. 361 at 15-16; D.I. 378 at 6-7. Although Ingenico delayed serving its initial subpoena and then enforcing it, once it elected to do so, it received all responsive documents in about six months. *Id.*

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